OCT 2 1 1986

United States General Accounting Office

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Briefing Report to the Chairman, Subcommittee on Intergovernmental Relations and Human Resources, Committee on Government Operations, House of Representatives

November 1986

COMPUTER MATCHING

Factors Influencing the Agency Decision-making Process

GAO/PEMD-87-3BR

GAO

United States
General Accounting Office
Washington, D.C. 20548

Program Evaluation and
Methodology Division

B-221025

November 10, 1986

The Honorable Ted Weiss
Chairman, Subcommittee on Intergovernmental
Relations and Human Resources
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In March 1984, you asked us to develop a methodology for evaluating the costs and benefits of a computer match, and we are responding to your request in a separate report to be entitled Computer Matching: Assessing Its Costs and Benefits. A second part of your request asked us to determine how the decision to conduct computer matches has typically been made in the past. In particular, you wanted us to identify the criteria used by inspectors general when deciding whether a particular computer match should be conducted. This briefing report is our response to the second part of your request.

We began our work by identifying specific computer-matching projects performed by inspectors general and others that indicated some reporting of costs and benefits. Using an initial contact questionnaire, we called the match contact person and collected descriptive information on over 40 matches. This included information about how the matches originated and the manner in which they were developed. We then conducted further, in-depth interviews on roughly half the matches initially identified (those for which our initial screening indicated that useful cost-benefit information might exist) to obtain more detailed information.

All told, we discussed the computer-match decision-making process with over 90 officials from 9 agencies. We analyzed the resulting body of information for factors or criteria involved in decision-making. If any factor was reported for even one match, we have included it in our report; we have, however, tried to indicate the factors that were the most common across the various matches. We also emphasize that for the sake of a clear presentation, we have organized our material according to major categories of influence. The considerations reported to us were not so neatly organized, nor was there necessarily a systematic review of each possible concern by the agencies on a specific match.

With regard to our findings, one major point concerns the quality and quantity of what we were able to learn about how decisions are made. On the question of well-documented evidence accompanying the decision-making process, the answer is, "Not much." That is, in general, for many of the matches we discussed with the agency officials, there was little documentation available on the development of a match from its initial conceptualization or on the decision to perform the match to actual implementation. We note that such documentation is not required and, thus, its absence should not necessarily be considered a deficiency finding. However, for purposes of answering the subcommittee's question, it does mean we had to rely, in many instances, on information taken from interviews with agency officials.

A first major finding is that we did not discover any agency documentation providing specific, written criteria that had been used by inspectors general or other agency decisionmakers in determining whether or not a proposed match should be implemented. Two other important points concerning the computer-match decision-making process are

1. The formality or structure of the decision-making process. The information that we were able to obtain indicated that there is considerable variation in the formality of the decision-making process--that is, in the use of systematic planning procedures for the development and implementation of a match. Some matches were developed with little agency structure or guidance. Other matches, particularly recent ones, used one or more formal procedures such as the preparation of written proposals, the approval or review of a proposed match by oversight committees, vesting final "go-no go" decisions in one upper level manager, and the assigning of an officially designated match manager to monitor the effectiveness of the match. We found this diversity in the use of formal procedures not only across agencies but also within agencies from match to match.

2. The basis on which a decision to proceed with a match is made. We identified three groups of factors that may influence the decision to perform a match. The first is a current climate or environment surrounding computer matching. Elements include (a) a rising concern about erroneous payments, (b) technological developments that make computer matching easier or more feasible than the manual methods that were used in the past, (c) reports of successful matches with large cost savings or cost avoidances, and (d) endorsement and recommendations by key oversight organizations for the initiation of matching to deal with erroneous payments.

The second type of influence on the decision to proceed with a match was the source of the match initiative. Factors an

agency normally considers in deciding to proceed with a self-initiated match are not applied to legislatively mandated matches or matches recommended by oversight groups. Less influential but still important are proposals initiated by other agencies and the ideas developed by staff within an agency, particularly senior leaders.

The third influence on the decision to conduct a computer match is more technical and internal to an agency. We categorized this kind of influence under two main groupings: factors involving the possibility of doing the match and factors reflecting the necessity of conducting such a match. Whether the agency has the capability or capacity to conduct the match--the "possibility" factors--might include the presence of adequate automated data processing resources, sufficient staff, cooperation from other agencies, adequate data quality, a capacity to follow up on hits, and the capacity to comply with applicable legislation and regulations.

This last factor reflects decisionmakers' concerns about privacy. It is interesting to note that we seldom encountered any expression of concern about the potential invasion of privacy that went beyond a matter of compliance with existing legislation and regulations.

Among the "necessity" factors were the rationale underlying the match idea, the costs versus the benefits of the match, the relationship of the proposed match to other matches, and the potential response to the match. With regard to the cost-benefit factor, we found that in the decision-making process benefits were more often identified than quantified. For a specific match, the factors agency officials identified were limited to several but not all the factors noted above.

In accordance with your request, this report has not been reviewed by agency officials. The principal recipients of the report are the members of the Subcommittee on Intergovernmental Relations and Human Resources. Unless you publicly announce the contents of this report earlier, we will make no further distribution of it for 30 days. Thirty days after the date of the report, copies will be available to those who request them. If you would like additional information, please call me (202-275-1854) or Lois-ellin Datta (202-275-1370).

Sincerely,

Eleanor Chelimsky

Eleanor Chelimsky
Director

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ABBREVIATIONS

ADP	Automated data processing
AFDC	Aid to Families With Dependent Children
DOD	U.S. Department of Defense
DOL	U.S. Department of Labor
GAO	U.S. General Accounting Office
HHS	U.S. Department of Health and Human Services
HUD	U.S. Department of Housing and Urban Development
OIG	Office of Inspector General
IRS	Internal Revenue Service
OMB	Office of Management and Budget
OPM	Office of Personnel Management
PCIE	President's Council on Integrity and Efficiency
SSA	Social Security Administration
USDA	U.S. Department of Agriculture
VA	Veterans Administration

BRIEFING REPORT

BACKGROUND

The chairman of the Intergovernmental Relations and Human Resources Subcommittee of the Committee on Government Operations asked us to (1) develop a methodology for evaluating the costs and benefits of a computer match, both prospectively and retrospectively, and (2) determine how the decision to conduct a match was made in order to identify and evaluate the criteria inspectors general use when deciding whether a particular computer match should be conducted. The letter appears in appendix I. This report is our response to the second part of the request. We respond to the first part of the request in a separate report to be entitled Computer Matching: Assessing Its Costs and Benefits.

After our preliminary review of agency computer-matching operations and discussions with subcommittee staff, we focused on describing the computer-match decision-making process and the factors that were considered in the decision to implement a match. To provide a broader perspective on this decision-making process, we have included agency matches initiated by program offices as well as by the offices of inspectors general.

Appendix II of this report describes our objective, scope, and methodology. For reasons discussed in the appendix, the quantity and quality of information we were able to gather were not adequate to support any rigorous assessment of the frequency or importance of the various factors identified in a decision to perform a match. Therefore, we limited our analysis to a description of nine agencies' decision-making processes. The report is divided into two sections and a summary. The first section presents what we learned about how decisions are made--that is, our observations about the computer-match decision-making process. The second section enumerates the criteria or factors that agency officials identified for us as influencing the decision to perform a match.

WHAT WE LEARNED ABOUT HOW DECISIONS ARE MADE

There are two main points about the decision-making process. First, documentation is limited. Second, what information we could obtain indicates that there is considerable variation in the formality of the decision-making process--that is, in the use of systematic procedures when planning a match.

Limited documentation on computer-match decision-making process

In general, for many of the matches we discussed with agency officials, little written documentation was available on the development of a match between its initial conception and its actual implementation. Written descriptions of the criteria or

factors considered in the decision to perform a match were lacking. In instances in which documentation about the decision-making process was available, it consisted of a briefing paper, a planning document, or a written match proposal or match notice prepared in compliance with the Office of Management and Budget's (OMB's) "Supplemental Guidance for Conducting Matching Programs" (which we refer to as the OMB "Matching Guidelines").

These documents recapitulated and, in some cases, elaborated on the factors mentioned in an interview. For example, a decisionmaker's expressed concern about a match's compliance with privacy-related rules and regulations was supported by the submission and publication of matching notices as required by the OMB "Matching Guidelines." An official's statement that there was some consideration of a match's potential costs and benefits was supported by documentation that presented figures developed as part of that analysis. For example, we were informed that, in planning matches to detect dual payments from compensation-pension systems, the Department of Labor's (DOL's) office of inspector general followed an iterative development process to prepare match proposals. As part of that process, some cost-benefit analysis of the matches was performed. Figures developed in this analysis appeared in a notice of matching sent to OMB.

Most documentation typically provided some indication of why a match was being performed, along with a description of the operation of the match. It did not describe, in detail, the deliberations or analysis underlying the development of the match to implementation. For example, in the DOL matches mentioned above, there was no description in the OMB matching notice of the iterative decision-making process or the considerations involved in choosing programs to participate.

Wide variation in the formality of procedures to structure the match decision-making process

Once a match idea has been introduced into an agency, staff are assigned to further develop the idea and plan the match. At one or more points in this development process, review and approval of the match occurs. We found that agency procedures for performing this development, review, and approval process to reach a decision about the implementation of a match have varied.

Some approaches to the match decision-making process have been fairly informal and decentralized. Other matches have employed various procedures and mechanisms to formalize the decision-making process. Even within the same agency, the extent to which the decision-making process may follow formalized procedures can vary from match to match.

A few matches we discussed with agency officials followed an essentially informal, ad hoc approach to the match decision-making process. These matches tended to be operations that were performed

several years ago and involved files that had not been previously matched. Internal agency guidelines or written procedures for considering the match initiative or idea did not exist. The OMB "Matching Guidelines," if applicable to the particular match under consideration, and other supporting documents (for example, the OMB "Computer Match Checklist" and Model Control System and Resource Document for Conducting Computer Matching Projects Involving Individual Privacy Data) provided the basic guidance as to what requirements had to be met in order to proceed with the match. A determination of how to proceed in match planning and the procedures for the internal agency review and approval of match plans appeared to be worked out as part of the match development process.

Examples of the less formal procedures

The office of inspector general at the Department of Housing and Urban Development (HUD) initiated a series of matches as a result of a U.S. Department of Agriculture (USDA) match that identified families in selected cities with indications of underreporting income that might result in the receipt of excessive food stamps. These USDA match results were referred to HUD for additional follow-up to determine if these families also received excessive benefits under federal housing programs. Based on the positive results from these USDA referrals, HUD implemented its own matches to detect income underreporting and conducted matches with public housing authorities that expressed a willingness to participate in such an operation.

In our discussions with officials about the development of the five matches in this series, we found little indication that any general procedures for initiating, planning, and performing these matches had been established. Documentation related to the planning of these matches was not available. We were informed that these matches were not yet at the point at which they could be routinized. We were also told that prematch cost estimates were not prepared and that no formal method for prioritizing work existed. Although there was a formal sign off on these projects at the level of the deputy and assistant inspectors general, we were not informed of any formal review process that was performed on the match proposals in this series that were independently initiated by the regional offices. Regional offices were said to have some flexibility in selecting audit work to conduct, since they were usually familiar with certain housing projects and could identify potential problems.

For Social Security Administration (SSA) matches initiated prior to 1984, an essentially decentralized match decision-making process appears to have been in operation. SSA found it necessary to conduct a survey of its units in order to establish an inventory of the matches it performs. SSA characterized the match cost and benefit information provided by the units in response to the survey as being "estimates" and not particularly well based on underlying data. An internal SSA evaluation of a match from the inventory

plus discussions with SSA staff who conducted other match evaluations indicated that the operations were very poorly documented.

Examples of the more formal procedures

Other matches that we reviewed used one or more procedures or methods for formalizing the match decision-making process. From these matches, we identified the following formal procedures and mechanisms as being used to structure the match decision-making process:

--written policies and procedures on the development, implementation, and evaluation of a proposed match;

--a written proposal;

--the approval or review of proposed match by oversight committee or specific offices within the agency;

--one upper-level manager responsible for final "go-no go" decision; and

--an officially designated match manager to monitor effectiveness of the match.

The Office of Personnel Management (OPM), for example, established an oversight committee to review proposed matches and assist in determining whether a match should be performed and how it should be implemented.

Matches recently implemented at SSA under its new guidelines utilize all of the procedures and mechanisms listed above. Instructions for the development and approval of matching operations have been formally promulgated in SSA's general administration manual. These instructions provide that written proposals be developed and include a suggested table of contents for proposals. All proposed matches are initially processed through one component of the central office that refers the proposals to other divisions and units for review and approval. This includes review by a budget office for funding, an automated data processing systems office for technical feasibility and computer costs, an office of policy for compliance with the Privacy Act and other applicable regulations, and program offices whose staff will be involved in the operation of the match. If the match is relatively simple, with no need for further development, one designated deputy commissioner could approve the match. If the proposed match is costly or complex, a decision memorandum recommending or not recommending the match is prepared and sent to all deputy commissioners for their review and concurrence. Their responses are summarized and the memorandum is sent to the commissioner for a final determination. A match manager is designated to oversee the day-to-day activities of the match operation.

Also, for many of the matches performed by offices of inspectors general, the decision-making process generally follows the same procedures used by those offices in reviewing and implementing any proposed audit or investigation. Steps are added to the process to address the match's compliance with applicable legislation, regulations, guidelines, and, if necessary, the involvement of other agency divisions or units. For example, at the Veterans Administration's (VA's) office of inspector general, audit managers may suggest possible matches at a quarterly planning meeting or at a semiannual review of jobs. At these meetings, the match idea is given peer review and upper management input. Unless prevailing opinion is that the match would not be worthwhile, or that it duplicates other match initiatives, a planning document is prepared that includes estimates of the staff time needed by the office of inspector general to perform the match and automated data processing costs. A policy and procedures division within the office of inspector general coordinates with the office of general counsel on the preparation and publication of matching notices in compliance with the OMB "Matching Guidelines." The match is approved by senior managers in the office of inspector general who review the progress of the match regularly.

In addition to establishing a formal structure in which the decision to perform the match is to be made, the methods listed above usually produce documentation on the match-development process. However, as we noted in the previous section, this documentation does not necessarily provide detailed information on the factors considered in this deliberative process. We did not find any examples of written criteria that had been, or could be, used by decisionmakers for evaluating whether or not a proposed match should be implemented. At SSA's office of assessment, we were informed that an informal set of criteria were being developed by that office in support of its role as a reviewer of proposed matches for the agency. However, the office of assessment added that not all the criteria that could be specified would be appropriate to consider on any given match. In reviewing a match proposal, the office of assessment indicated that it would not use a fixed list of criteria but rather those factors that were most relevant to the match's purpose.

FACTORS INFLUENCING THE DECISION TO PERFORM A MATCH

We identified three groups of factors that appear to influence the decision to perform matches. These groups were (1) an environment or climate that generally encourages computer matching, (2) the source of the match initiative, and (3) match-specific factors that concern the agency's justification for a match and its technical capability to implement it. Although we provide an extensive and systematic listing of these factors, in any given match only a few of the factors were reported to us as influencing the decision-making process.

Environment for computer matching

Although they were usually not cited by agency officials as having a direct effect on a particular match's decision-making process, a set of background factors or circumstances do appear to have facilitated computer matching. Based on our discussions with agency officials and our review of the computer-match literature, we identified those factors that, taken collectively, characterize this general environment.

Concern over fraud, abuse, and waste

One element contributing to this environment has been the increasing concern by the administration and the Congress over fraud and abuse in government programs. Within the current climate of funding reductions and tighter control of resources, more attention has been focused on whether program benefits are distributed appropriately to eligible program recipients. We estimate that erroneous program benefit payments total several billion dollars annually. The increased use of computer matching has been one response to address this problem.

Technological developments

Technological developments in the computer field have also contributed to the increased use of computer matching. Computers and software that can with relative ease be used to compare large sets of data have become available for various matching efforts. Program data for the major payment programs, including common identifiers (for example, Social Security numbers) that are needed for matching, have been automated.

Reports of successful matches

Reports of successful matches that provided figures on savings and avoidance of costs or noted large cost-benefit ratios also helped promote wider agency use of computer matching. Even though such figures were, in some instances, based on potential program savings rather than actual program savings, they did generate favorable publicity for computer matching that contributed to new match initiatives. Agencies that already had some experience with computer matching continued to refine their matching techniques and expand the scope of matches being conducted.

Key organizations recommend computer matching

While federal legislation mandating or encouraging the use of computer matching has stimulated this increase, especially at the state level, other initiatives have also contributed to its growth at the federal level. GAO, OMB, numerous agency inspectors general, and the Grace Commission have advocated the use of computer matching to screen, edit, and scan data to identify

irregularities that may be indicative of fraud, abuse, and error. In addition, the President's Council on Integrity and Efficiency (PCIE), which was formed to coordinate and promote government efforts to reduce program fraud and abuse, has encouraged the use of computer matching and established a Long-Term Computer-Matching Project. This interagency project is designed to facilitate and improve the use of computer matching and related techniques in federal and state program management. Under the auspices of this project, a number of matches and match support activities have been implemented by the inspectors general of various agencies.

Taken together, the concern over fraud, abuse, and waste in government programs, the development of computer technology and data bases suitable for matching, the apparently favorable results from early matches, and the encouragement from government organizations advocating the use of computer matching characterize the general environment in which agency decisionmakers consider the implementation of specific matches.

Source of match initiative can influence the decision-making process

Our discussions with agency officials indicated that the source of the match idea or initiative could be an important influence on the match decision-making process. Computer-match initiatives originate from different levels of authority, both external and internal to the match operator. These initiatives include

--legislatively imposed mandates requiring that a matching program be conducted,

--recommendations made by oversight groups such as GAO, OMB, and agency offices of inspectors general,

--match requests from other agencies, and

--ideas developed by staff within an agency.

Legislatively mandated matches

Agencies, in some cases, are required by statute to conduct a match. For example, at the federal level, agencies have implemented matches to locate and obtain payments from delinquent child-support providers and verify the eligibility of Supplemental Security Income recipients. Many legislatively mandated matches, however, are conducted at the state level. State Food Stamp and welfare agencies, for example, are required to match wage data, unemployment compensation data, or both with program participant records. In addition, the Deficit Reduction Act of 1984 requires states to develop an income and eligibility verification system to permit the matching of Aid to Families With Dependent Children (AFDC), Food Stamp, Medicaid, and other related program records.

In several instances, agency officials indicated that when matches were required by law, factors that would normally figure prominently in an agency decision to perform or continue a match, such as its expected or actual costs and benefits, were no longer significant considerations since the match was mandated. Such matches were characterized as another activity to be performed as part of routine program operations. Decisionmakers' concerns appeared to focus more on how to conduct the match than on whether the match should be done.

Recommendations from oversight groups

Program-related recommendations from GAO, OMB, the agency inspector general, and other oversight groups also serve as an important influence on the computer-match decision-making process. Recommendations may vary from general statements that agencies should consider using computer matching as a means of detecting program errors to specific requests that an agency match a particular data file with program recipient records.

Generally, recommendations are based on indications of program fraud, abuse, or error. For example, in the past, we have identified program payment errors and recommended that agencies perform computer matches to improve the management of program resources. In some cases, GAO, or an agency inspector general, has conducted a demonstration match and, given the results, recommended or suggested that the match continue to be performed by the agency.

For matches recommended by oversight groups, agencies can respond with some flexibility by disagreeing with the recommendation. Such a response can cite problems or concerns with implementing the match or suggest alternative measures to performing the match. In discussions with agency officials, however, we found that a match recommended by a group with oversight responsibility was viewed as a significant influence in deciding to perform a match. For example, a request from GAO was the basis for an SSA pilot match of a state prison population with SSA beneficiary files.

Requests from other agencies

Requests from other agencies to participate in a proposed match constitute a third source of match initiatives. The level of participation that is sought by the outside agency has ranged from a request for record abstracts from certain files to a more significant allocation of agency resources.

Where interagency match operations already existed, or were proposed, the interest in maintaining or establishing a reciprocal relationship constituted a force in favor of proceeding with the match. Likewise, interagency matches suggested by the PCIE's Long-Term Computer-Matching Project received a favorable response; for example, a match to locate government loan defaulters was characterized by officials in the VA office of inspector general as

being performed as part of its commitment to a PCIE interagency match initiative. We were not able to obtain any planning documentation on this match, and we were informed that no cost-benefit analysis of the match had been performed. However, we also identified a few match operations in which an initially favorable response to a proposal from another agency was followed by difficulties in arranging the details of each agency's role in the match, resulting in the match not being performed or being suspended.

Internal agency initiatives

The fourth source of initiatives for computer matches originates from within the agency. Ideas for matches flow into the decision-making process from all staff levels--audit and program staff members (from both headquarters and the field), agency planning units, and high-level agency officials. For example, of the matches we reviewed in one agency's office of inspector general, one match proposal came from regional audit staff and another from the inspector general.

With regard to match initiatives originating from within the agency, our review suggests, as might be expected, that match ideas or initiatives coming from the top down are perhaps likely to be treated in a manner similar to legislatively mandated or recommended matches. That is, the decision-making process may focus more on how the match can be performed than on whether it should be performed. For match initiatives coming from the bottom up, the source of the initiative is likely to have relatively less influence on the decision-making process, and relatively greater attention will be given to whether or not the match should be performed.

Match-specific factors considered in the decision-making process

However formal or informal the development of the match idea from inception to actual implementation was, agency officials were able to give us information on factors considered in deciding to perform a match. We have established, for the sake of clarity, a set of categorical factors from our listing and review of all the considerations identified for us. We have further classified these categorical factors as specific components of two major concerns facing decisionmakers in considering the implementation of a match operation.

One concern was whether the operational and technical capability to implement the match existed. The other concern related to considerations that constitute the basis, or rationale, for implementing the match. Factors classified under this second major concern were matters that given the availability of resources to perform the match, could be cited in support of the management decision to either perform or not perform the match. We characterize factors under both areas of concern as the explicit

matters considered by decisionmakers in determining if a match should be performed and the details of its operation.

Since documentation on the match decision-making process was often fragmentary, we could make only a limited assessment of the nature and breadth of supporting information for the factors that were identified. Consequently, it should be kept in mind that the discussion that follows is based on a listing of the factors said to be considered at least once in the match decision-making process; it is not representative of any single match.

Operational and technical concerns

The factors associated with this area of concern are as follows:

--automatic data processing resources,

--sufficient staff,

--cooperation among agencies,

--data quality and security,

--capacity to follow up on hits, and

--compliance with applicable laws and regulations.

Collectively, these factors address the decisionmaker's concern with the operational or technical possibililty of performing the match; they are discussed in more detail in the sections that follow.

Automatic data processing resources

One matter for consideration was the level and sophistication of automatic data processing resources (for example, programming staff, software, and hardware) that might be required to perform the match. This concern appeared to be the most relevant in circumstances in which accurate estimation of the needed data processing resources is more difficult, such as matches requiring the processing of a file that had not been used in a match before and the development of new software. For example, we were informed of matches attempted for the first time between DOL and OPM files and between OPM and state welfare files that were never completed, partly because of technical problems in matching up the files.

Sufficient staff

Another basic concern was whether sufficient staff were available, or could be made available, to plan and implement the match. One agency official noted that there was a tendency to

continue ongoing matches or projects rather than to start new ones. For matches initiated by offices of inspectors general that required the assistance of program field staff, this also entailed consideration of such related factors as the level of effort required to perform adequate verification and follow-up on the raw hits resulting from the match and the cooperativeness of other agency divisions that would be performing these activities. We were told of matches that had been discontinued because it was more difficult or time-consuming than expected to verify whether hits were solid instances of noncompliance with program regulations. For example, a match between files from DOL and the Health Care Financing Administration to detect dual payments to beneficiaries was discontinued because of the low level of hits and extensive verification efforts required.

Cooperation among agencies

In addition to the concern about the cooperativeness of other groups within the matching agency, match decisionmakers also cited concern about the cooperativeness of other agencies or organizations that would need to be involved in the match. One important consideration was whether the data files necessary for the match would be made available. For some matches, this concern was expressed in terms of the cost or level of effort needed to obtain the necessary data.

Data quality and security

A related concern was whether data would be adequate for use in the match. Determining the adequacy of the data file involved assessment of such qualities as the timeliness, accuracy, and completeness of the data. The use of data files that were viewed as old, incomplete, or subject to a high degree of error was characterized by match decisionmakers as less likely to result in successful matches or to increase the amount of verification and follow-up activities necessary to identify solid hits.

Security of data was seldom mentioned as a concern. One of the few officials who did discuss this factor thought that existing data security procedures provided adequate safeguards.

Capacity to follow up on hits

A few match decisionmakers indicated that their reviews of proposed matches included consideration of the program mechanisms in place to support follow-up activities. One aspect of this concern was the adequacy of due process and appeals procedures to handle the responses of program clients identified in the match. The other aspect was whether effective methods existed for recovering overpayments. That is, were there collection units and collection procedures such as offsets to future payments and garnishment of wages that would enable the benefits of the match to be realized?

Compliance with applicable legislation and regulations

A consistently cited concern of match decisionmakers was determining the need for, and the performance of, activities to ensure that the match complied with applicable legal and procedural requirements. One approach to addressing these concerns was to refer the proposed match to a designated individual or office to determine whether the match should comply with the OMB guidelines for the conduct of matching programs under the provisions of the Privacy Act. When matches are determined to be subject to the guidelines, the goal is to balance the agency's need to maintain program integrity with the need to protect the individual's right to privacy. Agencies are to publish notices in the Federal Register that describe the matches they plan to conduct, including the safeguards that will be used to protect against unauthorized access to or the disclosure of personal records. At the Department of Defense (DOD), matches are referred to a privacy board that serves this particular function.

In other agencies, it is the office of general counsel or some other group with a similar review function that provides advice; for example, at SSA the office of policy arranges for Privacy Act clearances. For matches involving state or local data files, there may be other privacy laws or restrictions that require some type of compliance activities.

Concerns about privacy were usually couched in terms of compliance with statutes and regulations. We seldom encountered any expression of a concern about the potential invasion of privacy that went beyond a matter of compliance.

Support and justification for implementing the match

Factors relating to the second general concern about support and justification for the match are as follows:

--rationale or reason underlying the match idea,

--costs versus benefits,

--relationship of proposed match to other matches, and

--potential response to the match.

Collectively, these factors address the decisionmaker's concern with the necessity of performing the match; they are discussed briefly in the sections that follow.

Rationale or reason underlying the match idea

Agency officials cited four reasons or rationales for conducting matches:

--address existing or potential problem,

--imitate a previous, successful match,

--utilize an existing data base, and

--improve efficiency of program operations.

It is our impression that of the reasons listed above the presence and magnitude of an existing problem is one of the more salient factors influencing the decision to perform a match. For instance, the allocation of program benefits to ineligible recipients because of underreported income or an unreported death was cited as one of the major reasons for implementing several matches. Another example is the Selective Service matching program, which was established in response to the failure of 18-year-old males to register with the Selective Service as required by law.

Awareness of program problems or errors is often established and documented through quality control reviews, formal audits, investigations, review of program controls, and other matches. In addition, audit or program staff may identify problems from their field experience or familiarity with the program. At the operational level, this concern is expressed as a consideration of how many solid hits (that is, actual instances of program noncompliance) might be identified by the match.

Concern about a potential problem may also be the basis for a match idea considered by decisionmakers. For example, a match proposal may be based on indications that an area of possible loss or noncompliance exists. The presence of weak internal controls or a recent change in program requirements might be cited as the basis for this concern about a potential problem. In this context, the results of the match can provide support for, or against, an alleged problem or impropriety.

For match ideas based on the imitation of other matches, the results of the previous match were cited as demonstrable support for conducting the proposed match. For example, at the VA office of inspector general, a match operation with one state was initiated as a result of a successful match operation of the same type with another state. As a result of the experience gained in the first state match, costs associated with initiating the match with the second state were reduced.

The existence of a data base that may be useful for matching purposes can lead to the development and implementation of a match that involves its use. Although we found no instance of a match idea that was developed solely because of the existence of an available data base, we were told at one agency that it might be considered indicative of bad management if data were available and not used for matching.

The potential for a match to improve the efficiency of program operations by replacing more costly, labor-intensive administrative procedures constitutes the fourth basis for match ideas. The amount of client contact necessary for program administration can be lessened by obtaining data from other computerized files. For example, a match of SSA's Supplemental Security Income files with the Internal Revenue Service's (IRS's) data on certain types of interest income is expected to provide SSA field staff with a more reliable and efficient method of verifying program participant assets.

For some of the match operations we reviewed, the idea for a match was based on a combination of two or more of the four rationales for matching (for example, the existence of a particular problem and the existence of a suitable data base for matching). For example, the knowledge that payments could still be issued to deceased beneficiaries and that SSA had automated records of deaths was cited as the basis for the OPM-SSA "death match" operation. For other match operations, the awareness of the problem resulted in the search for suitable data bases as part of the match development process. For example, a previously mentioned DOL office of inspector general match to detect dual payments from retirement systems used an iterative development process that began with the initial identification of programs that might be involved in the match and then subsequent research efforts to clearly define which programs to approach for possible participation in the match. This research effort included identifying and assessing the suitability of the potential match participants' data bases.

Costs versus benefits

One of the most commonly cited factors considered in the decision-making process was the match's costs relative to its benefits. Since the matches in our sample with information on costs and benefits received more detailed review, we were able to determine, to some extent, what the prematch analysis of costs and benefits entailed. Matches that we dropped from further review after our initial screening had little or no cost and benefit information available.

In general, proposed matches were considered not in terms of total cost in dollars but in terms of the level of agency resources (for example, staff and materials) needed to perform the match and the amount of effort involved in developing and implementing it. One aspect of this concern was the amount of

effort necessary for verification and follow-up activities relative to the return that might be realized. When documents containing estimates of match expenses are prepared, the cost of obtaining, preparing, and processing the files is one match expenditure commonly expressed in dollars.

Prematch estimates of benefits, when quantified, are expressed in terms of the amount of overpayments or unpaid loans that might be identified and potentially recovered. Qualitative benefits such as the enforcement of program regulations, deterrence of future participant noncompliance with program regulations, and detection of patterns of abuse were also identified as relevant considerations in weighing match costs and benefits. We found instances in which prematch estimates of potential returns were adjusted for what might be actually recovered. There were also matches that provided dollar estimates of erroneous payments that could be avoided as a result of the match. For the most part, however, the benefits of the match were more often identified than quantified in the decision-making process. Some officials observed that quantified estimates of costs and benefits developed prior to the match were speculative and probably inaccurate.

The importance of the cost-benefit factor to the decision-making process may vary in relation to the purpose of the match or the context in which it is performed. Matches performed for the first time as a limited pilot operation do not appear to engender strong cost-benefit concerns, since part of the reason for the match is to develop useful information on the costs and benefits of a full-scale match. In situations in which a match appears to be a viable method for an office of inspector general to use in fulfilling its role of investigating allegations or indications of program fraud and abuse, the relationship of match costs to benefits may also be less salient. For example, no cost-benefit analysis was done on a match performed by the Department of Health and Human Service's (HHS's) office of inspector general to detect false benefit claims for nonexistent children. The intent of the match was to identify fraud rings and prosecute them, and the cost-benefit factor was not viewed as a significant issue for this type of investigative match. In a case such as this, the costs of the match may be viewed as part of the expense of performing the office of inspector general's function within the agency, even though the only benefit realized may be a finding of little or no support for an allegation.

Whether the proposed match is to be performed by an office of inspector general or a program operations office may also influence the perspective taken in considering the cost-benefit factor. While both groups consider the program benefit dollars that may be recovered or saved, program operations personnel also mentioned that they consider whether the match will save or cost administrative dollars. For proposed matches whose verification and follow-up activities incur administrative costs, the deliberations of decisionmakers from program operations units

include some consideration of the possible effect performing match-related activities may have on other activities dealing with the administration of the program.

One official from a program operation unit expressed concern that in a climate of fixed administrative budgets, an increased emphasis on the performance of match activities may result in other administrative activities being given a lower priority. This concern was not expressed by any inspector general staff we interviewed. The approach taken by an office of inspector general is, in many cases, to perform an initial match and, if the results are favorable, recommend that the match be performed as part of routine program operations. The costs of the verification and follow-up activities performed by program staff are considered to be fixed costs and are generally not included in inspector general analyses of initial match results.

Relationship of proposed match to other matches

Another factor considered in the match decision-making process was the relationship of the proposed match to other ongoing or planned matches. When this factor was identified, it was usually expressed as a concern that the proposed match not duplicate other efforts. However, officials at OPM indicated that, in their decision-making process, this factor also included a comparative consideration of the match's payoff relative to other matches. They provided a worksheet showing the cost-benefit ratio on each match performed by one unit; we did not find other instances in which this type of analysis had been performed.

Potential response to the match

We have characterized certain considerations as "concern with potential response to the match." This category includes such concerns as IRS's about the effect of disclosing tax data on tax compliance. Compared to previously discussed factors, however, this factor was seldom identified by agency officials. In the few instances in which it was mentioned, it was characterized as either a concern about having to contact program participants in situations where there may be nothing wrong or a concern about possible challenges to the match. There was also a match planning document that included a brief assessment of the effect that the match might have on program participants.

Range of factors considered

Not all the factors we identified in this report were considered in any single match. For example, factors considered in one VA office of inspector general pilot match to detect inappropriate payments to remarried spouses included potential underreporting problems, the availability of useable data bases,

the cooperativeness of state agencies, the amount of staff time needed for the match, and an estimate of berefits. In an HHS office of inspector general match to determine if government pension offsets were being properly applied, a similar set of factors was identified, with the exception that an indication of weak internal controls was mentioned as a factor while concern about the level of staff resources was not. Factors considered in the previously mentioned OPM-SSA "death match" included not only the existence of a known problem and the availability of a data base but also the costs and benefits of the match. If a match was legislatively mandated or recommended by an oversight group, this was cited as the basis for proceeding with the match. Fewer factors, or no factors at all, were mentioned.

SUMMARY

In performing our work on methods of assessing the costs and benefits of computer matching, we discussed with agency officials the process involved in the decision to implement a computer match. We gathered information on the decision-making process for specific matches and also the general practices and procedures applied to current and new matches. We asked officials to identify the factors or criteria that were considered in the decision to implement a match. We found that the documentation on the computer-match decision-making process was limited. Consequently, our observations and analysis are predominantly based on information taken from interviews with agency officials.

Our review of this information suggests that across agencies, and even within agencies, there is considerable variation in the use of procedures to formally structure the computer-match decision-making process. Matches at the informal end of the continuum were proposed and implemented under conditions in which little or no formal agency guidance existed concerning how the match should be developed, who should decide to implement the match, and what matters should be considered in making this decision. Match proposals subjected to a highly structured, formal decision-making process do address these matters and may include some provisions for formally evaluating the results of the match. It was a common practice in offices of inspectors general to reach a decision about a match operation using the same process used for deciding about the implementation of other audit proposals.

We believe that some background factors extrinsic to a particular match proposal influence the decision-making process in favor of performing the match. We identified a set of events encouraging the use of computer matching that we characterize collectively as creating an environment conducive to matching. There are also indications that the source of the match initiative plays a significant role in the match decision-making process.

We developed lists of categorical factors that were mentioned at least once by agency officials as considerations in the match decision-making process. (See pages 14 and 16.) These lists represent a compilation of the factors considered across all the matches we discussed with agency officials. The lists are not, however, representative of any specific match.

In summary, while we did identify, through our interviews, a set of factors that are differentially considered--across agencies and across individual matches--we did not find any agency documentation providing examples of specific criteria that had been, or could be, used by decisionmakers for evaluating whether a proposed match should or should not be conducted.

APPENDIX I

REQUEST LETTER

TED WEISS, N.Y., CHAIRMAN
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NINETY-EIGHTH CONGRESS

Congress of the United States

House of Representatives

INTERGOVERNMENTAL RELATIONS AND
HUMAN RESOURCES SUBCOMMITTEE
OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
RAYBURN HOUSE OFFICE BUILDING, ROOM B-372
WASHINGTON, D.C. 20515
(202) 225-3648

March 15, 1984

The Honorable Charles A. Bowsher
Comptroller General of the United States
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

The use of computer matching by Federal and state agencies to detect fraud, waste, or mismanagement in government programs has increased dramatically in the last few years. Agency Inspector Generals have been very active in promoting computer matching by Federal, as well as by state agencies.

Ever since it began, computer matching has been controversial. Critics have argued that matching constitutes an unreasonable search, violates personal privacy, and may not be cost-effective. The legal and constitutional questions surrounding computer matching are not likely to be resolved without litigation. However, I believe that it is possible to resolve some of the factual questions about the cost-effectiveness of matching. I would like to enlist the aid of the General Accounting Office in this task.

Evidence presented to the Senate Government Affairs Committee by the New York Civil Liberties Union and others suggests that at least some computer matches may not be cost-effective when all costs are taken into account and when realistic evaluations are made of the benefits of matching. Prior to May 1982, the OMB Privacy Act matching guidelines called upon agencies to determine prior to conducting a computer match whether a "demonstrable financial benefit" can be realized. This requirement of a cost-benefit analysis was dropped in 1982.

There are no generally accepted rules by which the costs and benefits of computer matching can be measured. It is possible that those who conduct matching programs overstate the benefits and ignore many of the costs. I request that the General Accounting Office develop a methodology that will permit an evaluation of the cost-effectiveness of a computer match. This will require an identification of all relevant costs, including the cost of preparing records for matching, computer time, investigations of cases identified by the computer, overhead, and other costs. If possible, a method of estimating the cost to individuals who become the subject of investigation should also be developed. Where matching is a cooperative venture among different levels of government, the costs of each participant should be included.

Please note that I am not asking GAO to make a determination of the cost-effectiveness of computer matching. I do not believe that such a determination would be meaningful at this time. What I want is a methodology for evaluating cost-effectiveness that could be used both before and after conducting computer matches.

As a second part of this project, I would like the General Accounting Office to select a sample of computer matches conducted by Federal agency Inspector Generals and determine how the decisions to conduct the matches were made. The goal is to identify and evaluate the criteria used when deciding whether a particular computer match should be conducted. The purpose is to determine if decisions to conduct computer matches are based on appropriate criteria. The focus of this work should be on the reasons that supported the decision to conduct a match rather than on any justifications that were developed after the matching operations were complete.

Because of the importance of this subject, I ask that my request be given the highest priority and that work begin as soon as possible. If you have any questions, please contact Susan Steinmetz of the subcommittee staff.

Thank you.

Sincerely,

TED WEISS
Chairman

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective in doing this review was to provide a general description of the computer-match decision-making process and the factors that are considered in making the decision to perform a match. We intend this information to serve as a resource for generating questions about the procedures used in implementing a match and the appropriateness of the factors considered by decisionmakers. We focused on this objective after our initial planning and scoping effort in response to the subcommittee's request indicated that the lack of documentation on match-decision criteria and the lack of agreement on what might be considered appropriate standards would make it impossible to respond within a reasonable time to the subcommittee's request to identify and evaluate the criteria used.

Our study of the computer-match decision-making process was performed in conjunction with our work on the first part of the request--the assessment of computer-match cost-benefit methodology. In part of that effort, DOL's Inventory of Federal Computer Applications to Prevent/Detect Fraud, Waste, and Mismanagement and agency matching reports submitted to OMB were used to identify specific computer-matching projects that indicated some reporting of costs and benefits.

Using an initial contact questionnaire containing items for screening the matches identified, we called the match-contact person for each match and collected descriptive information concerning the match and any related cost-benefit analysis. This information often included descriptions of how the match originated and the manner in which the match was developed. We also asked the contact person if he or she were aware of any other matches that might have cost-benefit information. During this initial interview process, we were able to gather information on approximately 40 match operations that included, in varying detail, discussions and material relevant to the match decision-making process (see appendix III for a listing of the match operations). With the exception of two matches, one initiated in 1977 and another in 1979, all matches were initiated between 1980 and 1985.

From this initial round of information gathering, we identified, for more detailed review, matches that were most likely to provide insights on cost-benefit methodology. For roughly half of the matches initially identified, we conducted further in-depth interviews with agency officials identified from our initial contacts as having information on these matches. In our effort to obtain more detailed cost-benefit information about these matches, we also attempted to obtain additional information about the match decision-making process by using a separate interview guide. This interview guide focused on how the match developed and the factors or issues considered in deciding to perform the match. The interview guide also included questions designed to collect information on the general practices, procedures, and processes

that are currently applied to proposed matches. Although we identified a number of possible criteria or factors that might influence the decision to perform a match, the questions on the interview guide were open-ended, so that interviewees described the process and criteria in their own terms.

In performing the preliminary data collection activities and subsequent follow-up for more detailed information, we contacted over 90 officials from 9 agencies who were identified in match documentation, or by other officials, as being knowledgeable about the match operations that we selected (see appendix IV for a list of agencies and offices).

For the most part, information about the decision-making process and the factors influencing the decision were based on the interviewees' recall of the match. For old matches, or matches in which different personnel were involved in different phases of the match, details of this match development process were sketchy. Information about the decision-making process may be incomplete, since interviewees may have forgotten some aspects of the process and since not all the persons who were involved in the process were interviewed. For a few of the older matches that were initially selected, no key personnel who were involved with the match were still with the agency. For the matches selected for further follow-up after the initial screening, more than one person was interviewed about the match, when possible, so that the degree of consensus about the decision-making process could be assessed.

We obtained what we believe is a fairly complete account of the factors considered in the decision-making process for a few of the matches that we reviewed in detail. For the majority of the matches, however, only partial or fragmentary information could be obtained on the decision-making process.

Because of the primarily post hoc, oral nature of the information we obtained, we restricted our analysis to a broad description of agency decision-making processes and related factors and illustrated them with examples from specific matches. While we are able to identify some common practices, the information we have gathered on the decision-making process is too limited to support a rigorous assessment of the relative importance or weight specific factors receive in the decision-making process or the generalizability of our observations to the total population of matches.

APPENDIX III

THE LIST OF MATCH OPERATIONS THAT PROVIDED INFORMATION ON COMPUTER-MATCH DECISION-MAKING[1]

AGRICULTURE

State and local Food Stamp matches (continuing match series)
- --Seven match operations reviewed in special studies
- --Office of inspector general (OIG) reports and reviews (16 sites)

School lunch eligibility match (OIG)

DEFENSE

Dual compensation-pension matches (continuing match series)

DOD retiree files-VA, OPM, and state death record matches (continuing match series)

DOD employees-DOL Federal Employees' Compensation Act file match (OIG)

EDUCATION

Federal employees-federally insured student loan matches (continuing match series)

HEALTH AND HUMAN SERVICES

AFDC nonexistent children match (OIG)

State vital statistics match-SSA unreported marriage (OIG)

Unreported public pension match-SSA (OIG)

Federal employees-SSA black lung match (OIG)

Federal employees-AFDC match (OIG)

SSA-state bank matches
- --OIG review (1 site)
- --SSA review (3 sites) (continuing match series)

SSA-state death record matches (continuing match series)

SSA-IRS 1099 interface match (continuing match series)

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[1]Two or more interrelated matches (for example, the same type of match conducted in two different states) may be listed under a single match operation. "(OIG)" indicates match conducted by the office of inspector general.

SSA employee internal program integrity match

SSA state data exchange file-state wage, unemployment, and AFDC file matches (continuing match series)

SSA state data exchange file-Missouri title 19 file match

HOUSING AND URBAN DEVELOPMENT

Housing authority tenant income verification matches-state wage files and federal employees (OIG) (continuing match series)

Federal employees-title I debtors

INTERNAL REVENUE SERVICE

Credit for the elderly compliance program-SSA

HHS AFDC child-support enforcement match (continuing match series)

LABOR

State trade adjustment assistance internal match (continuing match series)

Black lung-OPM-SSA dual payment matches (continuing match series--OIG initiated)

Interstate unemployment insurance crossmatch program (continuing match series)

Federal employees-unemployment insurance match (OIG)

OFFICE OF PERSONNEL MANAGEMENT

Civil service retirees-SSA death match (continuing match series)

VETERANS ADMINISTRATION

Dependency-state vital statistics match (OIG)

Pension-state wage matches (OIG) (continuing match series)

Physician credentials match (OIG)

HHS AFDC child-support enforcement match (continuing match series)

Federal employees-VA pension match (OIG)

Federal employees-VA insurance premium waiver match (OIG)

Federal employees-VA education loan defaulters match (OIG)

APPENDIX IV

AGENCIES AND OFFICES CONTACTED ON COMPUTER-MATCH DECISION-MAKING

AGRICULTURE

Office of Inspector General

DEFENSE

Defense Manpower Data Center
Office of Inspector General

EDUCATION

Office of Inspector General
Office of Student Financial Aid

HEALTH AND HUMAN SERVICES

Office of Child Support Enforcement
Office of Inspector General
Social Security Administration
  Office of Assessment
  Office of Management, Budget, and Personnel
  Office of Policy
  Office of Supplemental Security Income
  Office of System Requirements

HOUSING AND URBAN DEVELOPMENT

Office of Finance and Accounts
  Title I Debt Collection
Office of Inspector General

INTERNAL REVENUE SERVICE

Research Division

LABOR

Office of Inspector General
Office of Workers Compensation Programs
Unemployment Insurance Service

OFFICE OF PERSONNEL MANAGEMENT

Office of Financial Control and Management
Office of Quality Assurance, Compensation Division
Office of Retirement Programs

APPENDIX IV

VETERANS ADMINISTRATION

Division of Veterans Benefits
Office of Inspector General

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